

Patent Abstracts of Japan

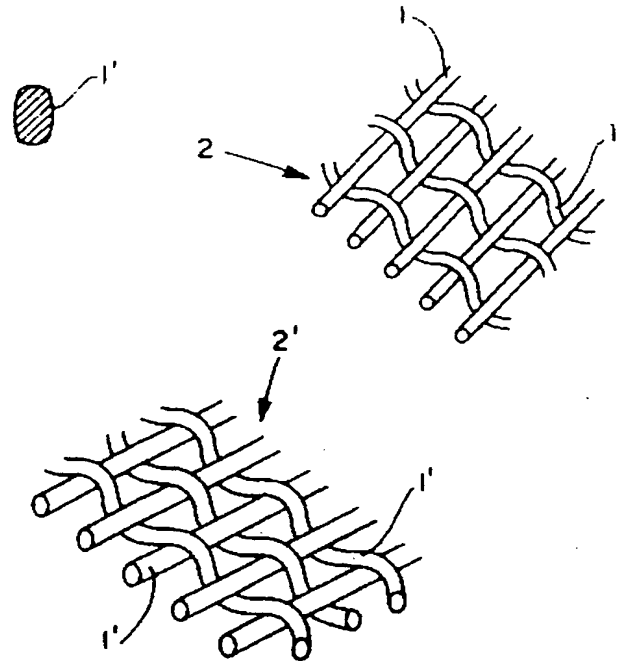
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TITLE : MANUFACTURE OF MESH FOR HEAT
ACCUMULATOR



ABSTRACT : **PURPOSE:** To reduce pressure loss and increase heat transfer surface in a heat accumulator mesh for stirling engine by a method wherein a mesh formed by braiding wires of approximately circular section is applied with a corrosive liquid in the direction of overlapping them to change the sectional shape thereof into an approximately elliptical shape.

CONSTITUTION: Wires 1 of a stainless steel, etc. and having an approximately circular section are braided into a mesh 2 by plain weaving or the like, and each one of the mesh or a plurality of meshes placed one upon another are applied with a corrosive liquid, for example, nitric acid, which is allowed to flow down on them in the direction of overlapping. As a result, the portions of the mesh which give higher resistance to flow of the liquid corrodes more rapidly so that the wires 1 are changed into wires 1' having an approximately elliptical section are brought into contact with adjacent longitudinally extending wires 1' which overlap the former. Thereafter, the longitudinal direction of the mesh 2' which has been neutralized by a neutralizing agent and washed with water is located in parallel with the direction of flow of a working gas. Thus, its resistance to heat in the direction of flow of the gas can be maintained, and no pressure loss occurs. Further, the rough surface obtained by scraping them off by corrosion provide an increased heat transfer surface thereby improving the heat conduction coefficient.

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